

REMARKS/ARGUMENTS

The Applicant originally submitted Claims 1-23 in the application. The Applicant has amended Claims 1, 10, 14, 17 and 23. No claims have been canceled or added. Accordingly, Claims 1-23 are currently pending in the application.

I. Formal Matters and Objections

The Examiner has objected to the drawings for including reference signs that are not mentioned in the description. In response, the Applicant has amended the specification to include the reference signs 30, 52, 58 and 102. Accordingly, the Applicant respectfully requests the Examiner to withdraw this objection of the drawings.

The Examiner has also objected to the drawings due to the confusion caused by the arrows leaving block #16 and the reference number for "Process Translation" block. In response, the Applicant has amended FIGURE 1 to indicate an arrow from block #16 only goes to block #17 and that the correct reference number for the "Process Translation" block is 19. Accordingly, the Applicant respectfully requests the Examiner to withdraw this objection of the drawings.

The Examiner has objected to the specification and claims for the misspelling of "null" and the incorrect use of a trademark. In response, the Applicant has amended the specification to correct these inadvertent errors and appreciates the Examiner's diligence in finding and bringing these errors to his/her attention. Accordingly, the Applicant respectfully request the Examiner to withdraw the objection to the specification.

II. Rejection of Claims 10, 13, 16 and 19 under 35 U.S.C. §112

The Examiner has rejected Claims 10, 13, 16 and 19 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. More specifically, the Examiner asserts that Claims 10, 13, 16 and 19 are rendered indefinite by relative terms. (Examiner's Action, page 3).

Regarding Claims 10, 13 and 19, the Applicant has amended the specification to more clearly indicate the definitions of "relevant" and "equivalent." The amendment is in the summary of the specification and does not add any new matter. Accordingly, the Applicant respectfully requests the Examiner to withdraw this rejection of Claims 10, 13 and 19.

Regarding Claim 16, the Applicant disagrees and directs the Examiner to the paragraph that begins on page 10, line 10, of the specification. This is an example of the specification providing a standard and an example for simplifying. Accordingly, the Applicant respectfully requests the Examiner to withdraw this rejection of Claims 16.

III. Rejection of Claims 1-18 and 23 under 35 U.S.C. §102

The Examiner has rejected Claims 1-18 and 23 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,330,530 to Horiguchi, *et al.* (Horiguchi). The Applicants respectively disagree since Horiguchi does not teach a method of extracting a verification model from program source code including generating a parse tree defining a control flow from the source code for procedural elements thereof. (Claim 1). Additionally, Horiguchi does not teach extracting a verification model from source code having a control flow for procedural elements of the source code. (Claim 23).

Horiguchi is directed to language translation system and, more specifically, transformation of a source language linguistic structure (such as English) into a target language linguistic structure (such as Japanese). (Column 1, lines 9-12 and Column 2, lines 8-11). Horiguchi teaches a syntactic analysis module that uses parsing grammar to create a parse tree for a sentence to be translated. (Column 7, lines 6-9). The parse tree of Horiguchi, however, does not define a control flow from source code for procedural elements thereof as recited in Claims 1 and 23. On the contrary, the parse tree of Horiguchi is a syntax parse tree that represents a sentence with leafs being a feature structure for words in the sentence. (Column 7, lines 9-10). Additionally, Horiguchi does not address extracting from source code but instead translates from an input source language (not source code) to a target language. (Column 2, lines 39-43). Thus, Horiguchi does not teach generating a parse tree defining a control flow from the source code for procedural elements thereof nor extracting a verification model from source code having a control flow for procedural elements of the source code.

Horiguchi, therefore, does not disclose each and every element of independent Claims 1 and 23 and is not an anticipating reference for Claims 1 and 23 and Claims dependent thereon. Accordingly, the Applicant respectfully requests the Examiner to withdraw the §102 rejection with respect to Claims 1-18 and 23 and allow issuance thereof.

IV. Rejection of Claims 19-22 under 35 U.S.C. §103

The Examiner has rejected Claims 19-22 under 35 U.S.C. §103(a) as being unpatentable over Horiguchi in view of an IEEE article by Janine Magnier, *et al.*, entitled “Temporal Proof of the Behavior of Sequential Machines.” (Magnier). The Applicants respectfully disagree.

The Examiner asserts that Horiguchi teaches each and every element of independent Claim 19 except the concept of “finite state models.” (Examiner’s Action, pages 15-16). Horiguchi, however, does not teach or suggest verifying that a software based system satisfies certain properties as recited in Claims 19 and 20. Instead, as discussed above, Horiguchi teaches transforming a source language linguistic structure into a target language linguistic structure. (Column 1, lines 9-12). Additionally, as mentioned above, the Applicant does not find where Horiguchi teaches or suggests extracting from source code as recited in Claims 19 and 20. On the contrary, Horiguchi translates from an input source language, not source code, to a target language. (Column 2, lines 39-43). Thus, Horiguchi does not teach or suggest each and every element for which it has been cited.

Magnier is directed to formal modeling and verification of discrete systems. (Abstract). Magnier has not been cited to cure the deficiencies of Horiguchi but to teach verification of finite state models. (Examiner’s Action, page 16). Additionally, the Applicant does not find where Magnier cures the deficiencies of Horiguchi since Magnier teaches formally verifying. (Page 258, Introduction).

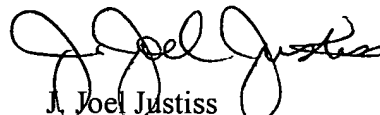
Thus, the cited combination of Horiguchi and Magnier does not teach each and every element of independent Claims 19-20 and Claims dependent thereon. Accordingly, the cited combination does not provide a *prima facie* case of obviousness of Claims 19-22 and, therefore, does not render Claims 19-22 unpatentable. Consequently, the Applicants respectfully requests the Examiner withdraw the rejection of Claims 19-22 and allow issuance thereof.

V. Conclusion

In view of the foregoing amendment and remarks, the Applicant now sees all of the Claims currently pending in this application to be in condition for allowance and therefore earnestly solicits a Notice of Allowance for Claims 1-23. The Applicant requests the Examiner to telephone the undersigned attorney of record at (972) 480-8800 if such would further or expedite the prosecution of the present application.

Respectfully submitted,

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